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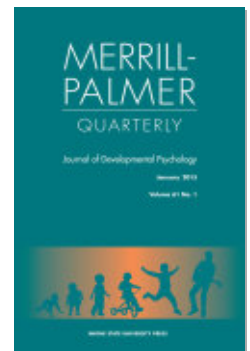
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Kari Jeanne Visconti, Gary W. Ladd, Becky Kochenderfer-Ladd

Merrill-Palmer Quarterly, Volume 61, Number 1, January 2015, pp. 101-123 (Article)

Published by Wayne State University Press



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## The Role of Moral Disengagement in the Associations Between Children's Social Goals and Aggression

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The construct of moral disengagement has increasingly been used by researchers to account for the asymmetry between children's moral reasoning and their moral behavior. According to this theory, moral disengagement occurs most aptly when children are motivated to violate their moral beliefs, such as when they hold antisocial goals during social conflict. In line with this, the current study examined whether moral disengagement would mediate the associations among children's antisocial and prosocial goals and aggressive behavior, both concurrently and over time. Specifically, cross-sectional and longitudinal data from 379 children were examined during and across their fourth-, fifth-, and sixth-grade school years. Findings provide evidence that moral disengagement mediates the concurrent association between antisocial goals and higher levels of aggressive behavior, as well as the concurrent association between prosocial goals and lower levels of aggressive behavior. Further, moral disengagement emerged as a significant mediator of the longitudinal association between prosocial goals and lower rates of aggressive behavior toward peers across the span of middle childhood. Finally, moral disengagement also emerged as a potential mechanism in the continued endorsement of relationship maintenance goals over time. Findings are discussed in terms of theoretical and practical implications.

Most children develop positive personal relationships with their peers and engage in prosocial behavior when interacting with agemates (Martin & Huebner, 2007). Further, children appear to understand that antisocial

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Data for this project were collected as part of the Pathways Project, supported by the National Institutes of Health grants 1- & 2-R01MH-49224 and R01HD-045906 awarded to Gary W. Ladd. We extend our gratitude to the principals, teachers, parents, and students who participated in this study, as well as the many graduate and undergraduate research assistants who assisted in data collection.

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behavior directed at their peers is inappropriate and identify peer-directed aggression as an issue of morality (e.g., reporting that aggressive behaviors are generally wrong and could result in harm; Murray-Close, Crick, & Galotti, 2006). Children's moral stance toward aggression is also reflected in the type of emotions they anticipate to result from their own aggressive behavior. Specifically, most children indicate that they would feel some degree of shame, guilt, or regret after bullying or picking on another child (Menesini et al., 2003). However, despite holding moral beliefs against aggression and the self-sanctions and social sanctions that are expected to follow aggression and bullying, a significant portion of children still engage in antisocial acts against their peers. Bullying and peer-directed aggression are serious incidents, as demonstrated by the maladaptive outcomes that are commonly identified for both the victim and the perpetrator, including emotional distress, externalizing behaviors, social isolation, school avoidance, and academic failures (Hawker & Boulton, 2000; Kochenderfer & Ladd, 1996). The frequency with which these behaviors occur and the myriad of negative consequences associated with aggressive behavior emphasize the need to better understand the processes that lead to peer-directed aggression.

A logical place to start in understanding the processes associated with children's propensity to aggress against their peers is their belief or understanding of aggression as a harmful, immoral behavior. However, results of research on peer-directed aggression suggest that there is a discrepancy between what children report as appropriate behavior (i.e., their moral beliefs) and how they actually interact with their peers (i.e., their moral behavior; Murray-Close et al., 2006). In other words, it may be possible for a child to report that aggression in general is wrong but nevertheless engage in these behaviors when motivated or prompted to do so. In order to effectively intervene in children's aggressive behavior, it is important to understand the circumstances under which children aggress against their peers despite appearing to understand that bullying is harmful and inappropriate.

One potential mechanism that may account for this discrepant pattern of beliefs and behavior is the construct of moral disengagement. Stemming from the social cognitive theory of moral agency (Bandura, 2002), *moral disengagement* is defined as patterns of reasoning about the use of antisocial behavior that reflects an effort to place it in a positive light, minimize the consequences, or otherwise reduce the perceived negative valence of a socially inappropriate act. Although this construct has been studied in philosophy and social psychology for several decades, its application to children and peer relations is still relatively new. However, a growing body of work examining moral disengagement in children highlights the role of this

unique form of social cognition in predicting social behavior, particularly bullying and aggression. Specifically, research has demonstrated that children with higher levels of moral disengagement are more likely to aggress against peers (e.g., Obermann, 2011; Paciello, Fida, Tramontano, Lupinetti, & Caprara, 2008) and report more positive attitudes toward aggression (Almeida, Correia, & Marinho, 2010).

What remains relatively less clear are the specific circumstances under which children are likely to use mechanisms of moral disengagement that can lead to greater aggression against their peers. Importantly, Bandura (1996) has argued that individuals generally behave in ways that are aligned with their moral standards. Behaving in a moral manner is guided by self-regulatory processes, such as the anticipation of positive self-evaluations and the avoidance of self-sanctions, including negative emotional responses (e.g., shame, guilt). However, the anticipation of self-sanctions in response to immoral behavior is thought to consciously activate cognitive processes that circumvent these unpleasant reactions to immoral acts. When an individual is in a circumstance characterized by personal or contextual pressures that encourage immoral behavior, moral disengagement may be used to lessen the negative self-evaluative barriers that are expected to arise in response to immoral actions.

Consistent with these ideas, the social cognitive theory of moral agency (Bandura, 2002) provides a valuable guiding framework for researchers and practitioners who wish to identify situations in which children are likely to disengage from moral standards. For example, Bandura's theory suggests that moral disengagement mechanisms are activated when an individual is *motivated* to act in opposition to his or her moral standards. In line with this, the goal of the current study was to test Bandura's proposition that moral disengagement may be applied in situations where a child reports a conscious desire to disengage from moral standards. Specifically, the desire to engage in immoral or antisocial, or alternatively to avoid antisocial behaviors, can be interpreted through the social goals (i.e., motives or desired outcomes) that children report in conflict situations.

Social goals appear to have implications for how children behave with peers (Pepler, Jiang, Craig, & Connolly, 2008), and these goals play an important and dynamic role in children's social interactions (Chung & Asher, 1996; Salmivalli, Ojanen, Haanpää, & Peets, 2005; Troop-Gordon & Asher, 2005). Although not all social goals reflect clear social motivations, the current study selected two competing types of social goals that indicate clearly desired outcomes in response to a hypothetical peer conflict. Specifically, a goal was selected to reflect an antisocial goal orientation, characterized by a desire to cause harm (i.e., seeking revenge) and a

goal that was selected to reflect a prosocial goal orientation, characterized by maintaining positive social interactions and relationships with others (e.g., relationship maintenance). In both of these situations, the social goals represent the desired end point that a child has defined as the outcome for given social situations and, as such, indicates the result they hope to achieve. The motivation underlying these goals can be interpreted as the desire that children feel toward achieving the envisioned outcome and the driving force behind the actions that the child selects to achieve these outcomes.

Considering the implicit overlap between motivation and goals, social goals present a potentially valuable opportunity to examine one specific factor that may predispose children to disengage from moral standards, thus increasing their risk of engaging in aggressive behavior. As such, the current study aimed to examine whether children's revenge and relationship maintenance goals were associated with moral disengagement. Further, we were interested in determining whether the associations between children's social goals and aggressive behavior are mediated by moral disengagement.

Most children who devise an *antisocial goal* (i.e., a goal that they recognize to be at odds with moral or social conventions, such as harming a peer via aggressive behavior) do so in a cognitive environment that contains knowledge of moral values or prohibitions against it. These values must be reconciled with the goal before the child can pursue the goal or enact goal-directed behaviors. Thus, when children construe or focus on antisocial goals and feel a desire to achieve that end, they must cope with the dissonance created by their understanding that such goals are at odds with moral or social conventions. Before an antisocial goal can be pursued, or the motive acted on, it is expected that children will reduce dissonance by disengaging from the moral value that prohibits such actions (i.e., by constructing rationales or reasoning that demeans the value's strength or relevance to the situation at hand). In contrast, the construction of prosocial goals are not likely to create dissonance because they are not at odds with moral beliefs. Instead, it may create dissonance to use moral disengagement strategies, or to report an accepting attitude toward bullying, in a situation where a child constructs a prosocial goal. Prosocial goals, therefore, may discourage the use of moral disengagement and thus reduce children's likelihood of aggressing against their peers.

In line with this, we first hypothesized that greater endorsement of social goals that reflect antisocial motivations (i.e., a desire to seek revenge or retaliate) would predict greater moral disengagement, whereas those reflecting prosocial motivations (i.e., maintaining positive social relationships) would predict lower rates of moral disengagement. Moral

disengagement was then expected to permit (or inhibit, in the case of prosocial goals) children to engage in aggressive or bullying behaviors toward their peers, as evidenced by significant associations between moral disengagement and peer-directed aggression. Finally, we expected that the association between children's social goals and aggressive behavior would be partially accounted for by the aforementioned associations with moral disengagement.

The current study builds on prior research on social goals and moral disengagement in a number of notable ways. First, this study expands prior work by Menesini, Nocentini, and Camodeca (2011) by assessing social goals that explicitly reflect antisocial and prosocial motivations in the form of social goals. Consistent with our expectations for the current study, Menesini and colleagues found that children's moral beliefs mediated the link between a motivation for self-enhancement and bullying behaviors. It is unclear from these findings, however, whether moral disengagement would be similarly activated or discouraged in other contexts of social motivation, such as when a child wishes to cause harm to a peer or maintain a harmonious relationship.

Second, the current study employed both concurrent and longitudinal data analyses to examine the patterns of associations among goals, moral disengagement, and aggressive behavior both within and across time. Bandura (2002) describes moral disengagement as a form of online processing that can vary depending on the circumstances surrounding a social interaction or incident of social conflict. Therefore, one may expect stronger associations among social goals, moral disengagement, and aggressive behavior to be evidenced when these constructs are measured simultaneously. Alternatively, tendencies to disengage also might change over time as a function of the goals that children typically endorse. The longitudinal nature of this study has the potential to generate a better understanding of dynamic, changing relationships among these variables over time and allows us to address questions of mediation to better understand how moral disengagement may account for changes in aggressive behavior toward peers. Further, as the constructs included in the current study may have more complex interrelations over time, additional mediated pathways among social goals and moral disengagement were examined when statistically warranted (i.e., significant path estimates). For example, it was expected that moral disengagement may not only mediate the link between social goals and aggression but also partially encourage continued endorsement of antisocial or prosocial goals.

Finally, middle childhood was chosen as the age period from which to draw this study's sample. The majority of research on children's moral

development and social behavior has focused on adolescence, citing the simultaneous increase in the importance and centrality of peers (Larson & Richards, 1991), as well as the qualitative shift in children's ability to incorporate mature reasoning into their moral standards and decisions (Schonert-Reichl, 1999). However, research suggests that aggression and bullying peak at earlier ages, specifically during middle childhood (Goldbaum, Craig, Pepler, & Connolly, 2007). As such, it is important to understand the factors that contribute to, or dissuade, increasing aggression at earlier ages. Further, addressing moral disengagement may be an important element to integrate into school bullying intervention and prevention programs. Thus, research is needed to better understand how moral disengagement operates specifically during this developmental period.

## Method

### *Participants*

Data for the current study came from a larger study examining longitudinal changes in children's social, psychological, and school adjustment. Participants were recruited for the larger longitudinal study in rural and suburban cities in the United States. Parental consent was obtained for 95% of the larger study's initial sample that was recruited prior to the entry into kindergarten. Data for the current study were gathered when children entered fourth grade (Time 1 [T1]; *M* age = 9 years 7 months, *SD* = 4.78 months) and again when they were in fifth grade and sixth grade, T2 and T3, respectively. Data were gathered from an initial sample of 379 children (189 girls and 190 boys) and their teachers at T1; data were gathered again when children were in fifth grade (T2) and sixth grade (T3). Only 9 children were lost due to attrition during the study. The sample was predominantly Caucasian (80.2%) but included children from ethnically diverse backgrounds: 15.6% African American, 2.1% mixed ethnic background, and 2% other ethnicity.

### *Measures*

*Social goals.* Children's social goals in response to a hypothetical peer conflict were assessed at each time point by using four different vignette scenarios (Chung & Asher, 1996). Specifically, children were presented with each hypothetical vignette and then used a 5-point Likert-type scale from 1 (*disagree a lot*) to 5 (*agree a lot*) to indicate the degree to which they would endorse two forms of social goals in that situation: revenge

and relationship maintenance. Each subscale was averaged across the four vignettes, and all scales were reliable (alphas ranged from .80 to .86). Descriptive statistics are presented in Table 1.

*Moral disengagement.* This was assessed by using items from Bandura and colleagues' (1996) moral disengagement scale. Of Bandura's original 32 items, 20 were retained that were relevant to children's reasoning about bullying. Items from the original scale were also omitted if they were deemed inappropriate for young children (i.e., items from the dehumanizing subscale). Children were asked to indicate how readily they agreed with the 20 statements reflecting different forms of moral disengagement relating to aggressive and antisocial behavior on a scale from 1 (*disagree a lot*) to 5 (*agree a lot*). Items tapped the following mechanisms of moral disengagement, including (1) moral justification (i.e., it is alright to fight

**Table 1.** Descriptive statistics

Variable	Total sample				Boys		Girls		$\alpha$
	<i>M</i>	<i>SD</i>	Min.	Max.	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Revenge goals									
T1	2.49	1.13	1.00	5.00	2.71 <sub>a</sub>	1.14	2.26 <sub>b</sub>	1.08	.80
T2	2.51	1.15	1.00	5.00	2.71 <sub>a</sub>	1.19	2.30 <sub>b</sub>	1.08	.86
T3	2.67	1.16	1.00	5.00	2.87 <sub>a</sub>	1.21	2.48 <sub>b</sub>	1.08	.85
Relationship maintenance goals									
T1	3.12	1.15	1.00	5.00	3.00	1.18	3.23	1.12	.81
T2	3.23	1.13	1.00	5.00	3.06 <sub>a</sub>	1.13	3.40 <sub>b</sub>	1.10	.85
T3	3.18	1.12	1.00	5.00	2.95 <sub>a</sub>	1.16	3.41 <sub>b</sub>	1.04	.85
Moral disen- gagement									
T1	2.31	.55	1.00	4.23	2.43 <sub>a</sub>	.56	2.18 <sub>b</sub>	.51	.81
T2	2.25	.62	1.00	4.85	2.37 <sub>a</sub>	.66	2.13 <sub>b</sub>	.55	.87
T3	2.25	.69	1.00	5.00	2.38 <sub>a</sub>	.68	2.12 <sub>b</sub>	.68	.87
Aggression									
T1	1.24	.41	1.00	3.00	1.33 <sub>a</sub>	.48	1.15 <sub>b</sub>	.31	.92
T2	1.25	.42	1.00	3.00	1.32 <sub>a</sub>	.48	1.18 <sub>b</sub>	.34	.93
T3	1.21	.37	1.00	2.86	1.28 <sub>a</sub>	.43	1.14 <sub>b</sub>	.30	.81

Note. T = time. Means with subscripts are significantly different at  $p < .05$ .



to protect your friends; it is alright to hurt someone who badmouths your family; it is alright to fight when kids say bad things about your friends; and it is okay to lie to keep your friends out of trouble), (2) euphemistic labeling (i.e., slapping and shoving is just a way of joking; hitting an obnoxious person is just giving them a lesson; picking on kids sometimes helps them learn to stick up for themselves; and taking a bike without permission is just borrowing it), (3) displacement of responsibility (i.e., kids living under bad conditions cannot be blamed for behaving aggressively; kids who are not disciplined should not be blamed for their behavior; kids cannot be blamed for using bad words when their friends do it; and kids cannot be blamed for misbehaving if they are pressured by friends), (4) distortion of consequences (i.e., it is okay to tell small lies because they do no harm; kids do not mind teasing because it shows interest in them; teasing does not really hurt; and insults among children do not harm anyone), and (5) attribution of blame (i.e., if kids fight it is their teacher's fault; if people are careless with their things, it is their fault if they get stolen; kids who get mistreated usually do things to deserve it; and children are not at fault for misbehaving if their parents force them to do things too much). Given the consistency in previous research with which these items are found to load on a single factor (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Paciello et al., 2008; Pelton, Gound, Forehand, & Brody, 2004), items across the different mechanisms of moral disengagement were averaged at each time point to reflect a single construct. Items within each time point evidenced adequate reliability and were averaged to create composite scores (see Table 1).

*Aggression.* Teachers provided data on their students' aggressive behavior by using seven items from the Child Behavior Scale (Ladd & Profilet, 1996; Ladd, Herald-Brown, & Andrews, 2009). Specifically, teachers were asked to indicate the extent to which each of the items (i.e., fights with others; bullies others; hits, kicks, or pushes others; is aggressive; taunts and teases others; threatens others; and argues with peers) was an appropriate descriptor for each participating student on a scale from 1 (*does not apply*) to 3 (*certainly applies*). Responses were averaged to create a mean score at each time point (see Table 1 for means, *SDs*, and internal reliabilities).

### *Procedure*

Prior to data collection at each time point, parental consent and informed child assent procedures were followed in accordance with ethical guidelines approved by the institutional review board. Specifically, children with parental permission to participate in the study were given information

about the general goals and procedures of the larger study, were assured of the confidentiality of their answers, and were told that they could skip questions or stop their participation at any time without risk of personal consequence. After written assent was obtained, participants completed self-report assessments in a classroom setting. Children received initial instruction and then were allowed to complete measures at their own pace. Assistance was provided by trained research assistants as needed. Teachers also completed assessments of children's classroom behavior and adjustment. Children and teachers were thanked for their participation and were given a small gift for their participation (e.g., pencils/gift certificates or a cash honorarium, respectively).

## Results

### *Attrition and Missing Data Analyses*

Percentage of missing data by variable was examined at each time point. Among those students with available data at T1, percentages of missing data ranged from 1.6% to 4.4%. Among those students with available data at T2, the percent of missing data ranged from .80% to 8.7%. Finally, among those students with available data at T3, percentages of missing data ranged from 3.0% to 8.1%. Missing data were primarily due to a small amount of attrition over the span of the study. Given these missing data, maximum likelihood estimation was used when creating the structural equation models discussed in the results that follow.

### *Descriptive Statistics and Bivariate Correlations*

Prior to constructing the structural equation models, descriptive statistics and bivariate correlations were examined for all study variables. When a one-way analysis of variance was used to examine gender difference on all study variables, the results (see Table 1) indicated that boys reported higher levels of revenge goals than did girls at all time points. Girls reported greater relationship maintenance goals at T2 and T3. Boys also demonstrated higher levels of moral disengagement and aggressive behavior than did girls across all time points.

A number of significant correlations also emerged (see Table 2). Notably, the pattern of correlations did not change when controlling for gender, and, as such, unadjusted bivariate correlations are presented. As expected, moral disengagement was significantly and positively correlated with aggression at all time points ( $r$ s ranged from .12 to .23, all  $p$ s < .01),

**Table 2.** Bivariate correlations

Variable	1	2	3	4	5	6	7	8	9	10	11
<b>Revenge goals</b>											
1. T1	—										
2. T2	.37***	—									
3. T3	.26***	.42***	—								
<b>Relationship maintenance goals</b>											
4. T1	-.42***	-.37***	-.22***	—							
5. T2	-.26***	-.50***	-.28***	.47***	—						
6. T3	-.23***	-.38***	-.47***	.35***	.42***	—					
<b>Moral disengagement</b>											
7. T1	.37***	.30***	.20***	-.34***	-.24***	-.24***	—				
8. T2	.29***	.47***	.24***	-.34***	-.34***	-.33***	.41***	—			
9. T3	.25***	.30***	.38***	-.34***	-.22***	-.30***	.39***	.44***	—		
<b>Aggression</b>											
10. T1	.09	.14**	.15**	-.06	-.12*	-.14*	.17***	.16**	.19***	—	
11. T2	.01	.19**	.17***	-.01	-.15**	-.10*	.23***	.13**	.16***	.55***	—
12. T3	.00	.15**	.07	-.02	-.10*	-.05	.18***	.19***	.12**	.51***	.51***

Note. T = time. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

and both constructs were relatively stable over time (i.e., significant and positive correlations within each construct across the three waves of data;  $r$ s ranged from .39 to .55, all  $ps < .001$ ). Each social goal subtype was also positively correlated across time ( $r$ s ranged from .26 to .47, all  $ps < .001$ ).

Further, significant associations among social goals were found at each time point and over time. In general, revenge goals demonstrated negative correlations with relationship maintenance goals ( $r$ s range from  $-.22$  to  $-.47$ , all  $ps < .001$ ), with the strong associations appearing within concurrent measures of social goals.

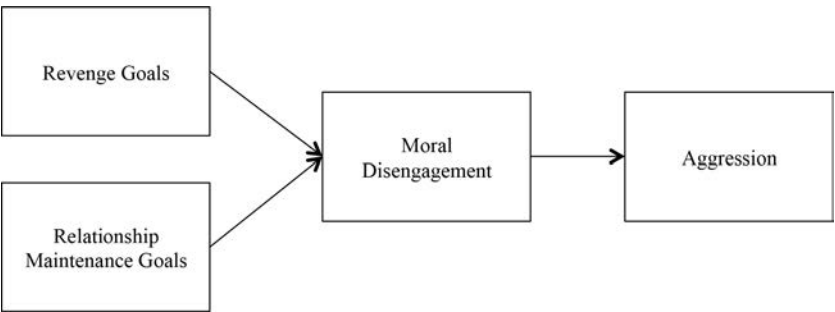
As expected, revenge goals demonstrated positive associations with moral disengagement and, with the exception of T1, were also positively correlated with aggressive behavior. Alternatively, relationship maintenance goals were negatively correlated with both moral disengagement and aggressive behavior, though significant associations emerged with aggression at only T2 and T3.

*Model Estimation and Indices of Global Fit*

The models presented here were estimated by using structural equation modeling (SEM) in Mplus 5.21 (Muthén & Muthén, 1998–2010) using maximum likelihood estimation to treat for missing data (Enders & Bandalos, 2001). The fit of the hypothesized model to the data was determined by using a combination of fit statistics including the root mean square error of approximation (RMSEA; values of .06 or below indicating good model fit), comparative fit index (CFI; values of .95 or above indicating good model fit), and standardized root mean square residual (SRMR; values of .08 or below indicating good model fit). Hu and Bentler’s (1999) recommendations for evaluating model fit by using these statistics were used as general guidelines when making decisions about the appropriateness of the hypothesized model to the observed data (see Table 2).

*Concurrent Mediation Models*

A series of cross-sectional structural equation models was first estimated at each time point to examine for the presence of a significant indirect effect of social goals on teacher reports of aggressive behaviors via moral disengagement (see Figure 1). Revenge goals and relationship maintenance goals were entered simultaneously as concurrent predictors of moral disengagement at each time point, and moral disengagement was modeled as a concurrent predictor of aggression. Each model (i.e., T1, T2, and T3) met the a priori guidelines for good model fit (for all concurrent models, RMSEA < .04, CFI > .98, and SRMR < .02). Results indicated that revenge goals predicted higher levels of moral disengagement, whereas relationship maintenance goals predicted lower levels of moral disengagement. In addition, moral disengagement positively predicted concurrent aggressive



**Figure 1.** Model of concurrent associations among goals, moral disengagement, and aggression.

**Table 3.** Standardized path coefficients, global model fit indices, and estimates of indirect effects for concurrent structural equation models.

	Revenge goals → Moral disengagement	Relationship mainte- nance goals → Moral disengagement	Moral disen- gagement → Aggression	Indirect effect for revenge goals	Indirect effect for relation- ship mainte- nance goals
T1	.28***	-.22***	.17***	.05**	-.04**
T2	.39***	-.14***	.12*	.05*	-.02†
T3	.29***	-.21***	.19***	.06**	-.04**

Note. T = time. †  $p < .06$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

behavior. Further, tests of indirect effects at each time point indicated the presence of (a) significant indirect effects of moral disengagement on the associations between revenge goals and higher levels of aggressive behavior and (b) significant indirect effects of moral disengagement on the associations between relationship maintenance goals and lower levels of aggressive behavior. (See Table 3 for a full summary of concurrent model results.) As such, results consistently supported the hypothesis that moral disengagement partially mediated the concurrent associations among children's social goals and aggression at each time point.<sup>1</sup>

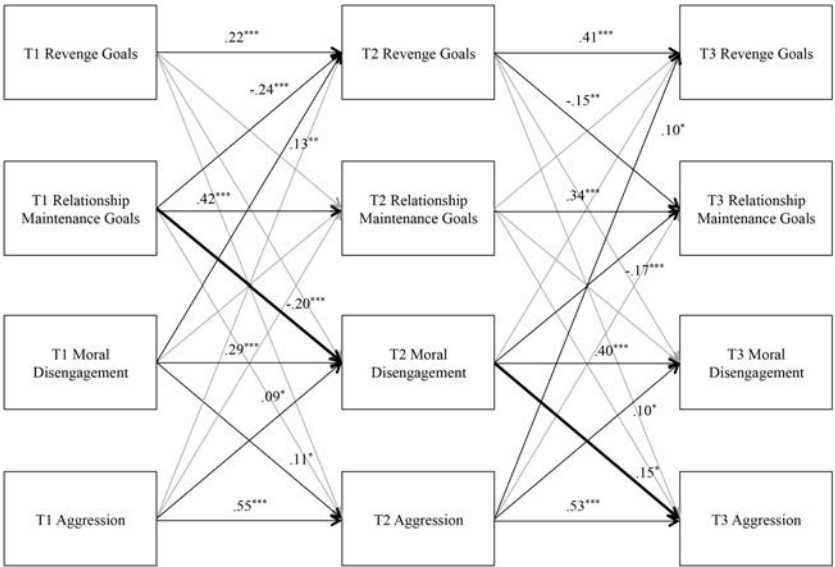
### *Longitudinal Mediation Model*

In addition to the concurrent associations among the study variables, a single model was estimated to examine the associations among children's social goals, moral disengagement, and aggressive behavior across the three waves of data. A full panel model was used and included children's observed scores on revenge goals, relationship maintenance goals, moral disengagement, and aggression at each time point. Paths were included to estimate stability within each variable over time and all cross-lagged paths among variables over time. All model parameters were constrained to be equal for boys and girls. The full hypothesized model met the a priori guidelines for good model fit: CFI = .93, RMSEA = .10, and SRMR = .05.

1. Nested model comparisons were conducted for each concurrent model, and results indicated that a model estimating paths freely for boys and girls did not improve model fit significantly when compared to a fully constrained model. As such, results of cross-sectional structural equation model are presented from models in which paths are constrained to be equal for boys and girls.

A nested chi-square difference test was then conducted in order to examine potential gender differences in the strength and direction of the associations in the longitudinal model. Specifically, an additional model was created in which all model parameters were freely estimated separately among boys and girls: CFI = .92, RMSEA = .10, and SRMR = .05. The freely estimated model was then compared to the aforementioned fully constrained model. Results indicated that constraining all model paths to be equal for boys and girls did not significantly diminish the overall fit of the model:  $\chi^2(20) = 18.77, p = ns$ . This suggests that the structure of the longitudinal relationships among children’s goals, moral disengagement, and aggression is equivalent for boys and girls. As such, all subsequent path estimates are presented from the initial, fully constrained model.

Fully standardized path estimates for the final model are presented in Figure 2. As expected, all variables showed significant stability over time such that earlier assessments of each variable were a significant and positive predictor of the same variable measured 1 year



**Figure 2.** Longitudinal model with standardized path estimates. Gray lines denote nonsignificant paths. Bold lines represent the meditational pathway between relationship maintenance goals, moral disengagement, and aggressive behavior. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

later. Relationship maintenance goals at T1 significantly predicted less moral disengagement at T2. This pattern of findings, however, was not replicated between T2 and T3. Although no significant relationship emerged between T1 revenge goals and T2 moral disengagement, T2 revenge goals did significantly predict greater moral disengagement at T3. As expected, both T1 and T2 moral disengagement significantly predicted greater aggression at T2 and T3, over and above prior reports of aggressive behavior. A reciprocal relationship also emerged such that aggressive behavior at each time point also positively predicted subsequent moral disengagement.

Tests of indirect effects were used in Mplus to examine the hypothesis that moral disengagement mediates the association between children's social goals and changes in aggression over time in the final model. Specifically, indirect effects were examined for the longitudinal path from T1 revenge goals to T3 aggression via T2 moral disengagement and the longitudinal path from T1 relationship maintenance goals to T3 aggression via T2 moral disengagement. A statistically significant indirect effect was found, indicating that moral disengagement mediated the association between relationship maintenance goals and subsequent declines in aggressive behavior: standardized indirect effect =  $-.03$ ,  $p < .05$ . However, the indirect effect from revenge goals to subsequent aggression via moral disengagement was not statistically significant: standardized indirect effect =  $.01$ ,  $p = ns$ .

### *Additional Longitudinal Mediation*

A post hoc analysis of an alternative mediated pathway was conducted to examine whether moral disengagement may account for changes in relationship maintenance goals over time. Specifically, the final model demonstrated that T1 relationship maintenance goals was negatively associated with moral disengagement at T2, and, subsequently, moral disengagement was negatively associated with relationship maintenance goals at T3, controlling for T2 social goals. Tests of indirect effects suggest that moral disengagement may mediate the stability, or change, in children's social goals over time: standardized indirect effect =  $.03$ ,  $p < .05$ . This suggests that decreasing levels of moral disengagement may account for the high degree of stability in relationship maintenance goals. In other words, remaining "engaged" in one's moral standards against peer victimization may encourage children to retain, or increasingly develop, positive and prosocial goals when they experience conflict with peers.

## Discussion

Results from the current study expand our understanding of the potential associations among different social goals, moral disengagement, and peer-directed aggression among middle school children. Specifically, as discussed more fully in the paragraphs to follow, findings from SEM analyses revealed (a) significant mediation effects of moral disengagement on the relations between social goals (i.e., revenge and relationship maintenance) and in aggression, (b) the role of moral disengagement in the development and stability of children's revenge and relationship maintenance goals, and (c) bidirectional effects between moral disengagement and aggression. Moreover, although gender was not a significant moderator of the longitudinal models, mean sex differences were consistent with the extant literature.

### *Moral Disengagement as Mediator of Link From Social Goals to Peer-Directed Aggression*

Support was consistently garnered for the hypothesis that moral disengagement would mediate the concurrent links between children's social goals and their aggressive behavior. Specifically, within each time point, concurrent analyses indicated that higher levels of revenge goals predicted greater moral disengagement, which in turn predicted greater use of peer-directed aggression. Thus, findings are consistent with Bandura's (2002) social cognitive theory of moral agency, which contends that children actively employ moral disengagement strategies when socially motivated to so, thus allowing them to act in immoral ways while presumably avoiding negative emotional consequences, such as shame or guilt. In other words, higher levels of moral disengagement related to revenge goals may be viewed as intentional disengagement from one's moral standards to allow the enactment of immoral behavior.

In addition, positive social goals (e.g., desiring to maintain relationships when in conflict) predicted less use of moral disengagement and, ultimately, lower levels of aggressive behavior both concurrently and over time. Prosocial goals may encourage children to remain actively cognizant of their moral beliefs against bullying and, in doing so, may discourage aggression toward peers. This pattern of findings was also replicated in the longitudinal associations among relationship maintenance goals, moral disengagement, and aggressive behavior. Specifically, the longitudinal link between T1 relationship maintenance goals and lower levels of T3 aggression was mediated by lower rates of moral disengagement at T2.



Thus, in addition to operating concurrently, a prosocial orientation to goals in a conflict scenario may influence children's general tendency to stay engaged in their moral standards over time, thus discouraging a developmental trajectory characterized by greater aggression over time.

In contrast to this significant longitudinal pattern, moral disengagement did not emerge as a mediator of the longitudinal association among revenge goals and increases in aggressive behavior. When compared to the consistent pattern of concurrent results, this lack of longitudinal findings is consistent with the idea that moral disengagement is a form of "online" cognition that operates within contexts that call for the temporary deactivation of moral standards. Thus, one might expect to see a stronger function of moral disengagement when it is measured in conjunction with an accompanying social goal and behavioral tendency. The processes through which children decrease their likelihood of morally disengaging (and thus tend not to aggress against peers) also might be somehow different from the processes by which children "opt in" to aggression via moral disengagement when they have a desire (i.e., a social goal) to do so. It is important to note, however, that strong theoretical arguments should not be developed on the basis of null results in a single sample. Instead, research is needed to examine whether moral disengagement is indeed a more influential process when it is context-specific or whether this construct reflects a general traitlike tendency to disengage from moral standards when prompted or motivated.

### *Reciprocal Influence Between Social Goals and Moral Disengagement*

Interestingly, although inconsistent between waves of data, longitudinal SEM results also revealed a reciprocal influence of moral disengagement on children's selection of social goals over time. Such findings highlight the importance of not drawing conclusions of direction of effects from correlational findings. Consider, for example, the bidirectional relations between relationship maintenance goals and moral disengagement. On one hand, significant mediation effects of moral disengagement suggest that children who initially hold prosocial goals are likely to maintain, rather than disengage from, moral beliefs about bullying, and, in turn, that such social goals are strengthened over time. On the other hand, findings also revealed that initial levels of moral disengagement predicted decreases in relationship maintenance goals from T2 to T3, suggesting that disengagement from moral beliefs weakens prosocial relationship goals. A similar effect was found between initial levels of moral disengagement and revenge goals, but, in this case, revenge goals were strengthened.

Together these findings point to the potentially important role of moral disengagement in the development of some forms of social cognition. For example, while we know of no other published work showing that moral disengagement influences social goals per se, researchers have reported that it does affect other forms of social cognition and emotion. For instance, Paciello and colleagues (2008) found that youth with chronically high levels of moral disengagement across the course of adolescence reported fewer self-sanctioning emotions (e.g., shame, guilt) in response to bullying over time. Thus, frequent use of moral disengagement strategies may actually change the way children view immoral behavior and the expected negative consequences that typically follow such acts. Extending this argument further, it could be speculated that chronic moral disengagement may shift children's goal orientations toward increasing antisocial motives, including promoting revenge and retaliation during peer conflict as well as reducing desires for relationship maintenance. Thus, understanding how moral disengagement may change the social goals of children, adolescents, and even adults over an extended period represents an important future direction of research.

### *Reciprocal Influence Between Moral Disengagement and Aggression*

Not unexpectedly, a bidirectional effect was found for moral disengagement and aggressive behavior, such that moral disengagement was not only predictive of increases in aggression over time, but that engaging in peer-directed aggression served to encourage further disengagement from one's moral beliefs. Consequently, the current findings do not allow us to fully conclude that children are making a conscious moral choice to disengage from what they believe prior to acting immorally. It is also possible that, after engaging in aggressive behavior, children rationalize their actions by altering their moral beliefs through disengagement. Research with younger children may help shed light on the issue of causal priority.

### *Gender Differences*

Although multigroup model comparisons indicated that sex was not a significant moderator of the paths in the concurrent or longitudinal model, mean differences among goals, moral disengagement, and aggression were consistent with the extant literature on sex differences. These results are not surprising given that children's sex has been implicated as an important

factor in moral beliefs, reasoning (Gilligan, 1982), and behavior, as well as their social orientation when interacting with their peers (Rose & Rudolph, 2006). For example, consistent with findings showing that girls are more likely to engage in prosocial behaviors (Crick & Grotpeter, 1995), girls in the current study were more likely than boys to endorse relationship maintenance goals when in peer conflict and less likely to endorse revenge goals. In addition, girls were less likely to be morally disengaged and evidenced a lower propensity toward aggression than did boys. This pattern of mean-level gender differences has been similarly found in subsequent studies (e.g., Paciello et al., 2008).

Despite the significant mean-level gender differences, the findings in the current study suggest that the associations among social goals, moral disengagement, and aggression do not differ as a function of children's sex. In other words, although differences may exist in the degree to which boys and girls endorse various social goals, disengage from their moral beliefs, and aggress against their peers, the relations among these variables are similar. This is consistent with prior research suggesting that although mean-level gender differences exist, the association between moral disengagement and aggression does not vary as a function of children's gender (Gini, 2006). Consequently, social goal orientation and moral disengagement may be valuable elements to include in classwide and schoolwide bullying intervention programs that may benefit boys and girls equally.

### *Limitations and Future Directions*

Although the current study presents novel information about the role of moral disengagement in the development of aggression, limitations do exist that warrant mention and possible future investigation. First, the current study focused on overt forms of aggression and bullying, including physical bullying (e.g., hitting, kicking, pushing), threats, teasing, and taunts; however, moral disengagement may be differentially related to other forms of aggression, such as covert (e.g., relational) bullying or the type of bullying and harassment that occurs via technology such as e-mail, social networking websites, and text messaging (Menesini et al., 2011). For example, researchers have found that children who engage in cyberbullying evidence higher rates of moral disengagement than children who engage in more traditional forms of bullying or who were not classified as bullies (Pornari & Wood, 2010). Thus, studies are needed to further examine the role of moral disengagement on a broader range of aggressive and bullying behaviors.

Further, aggression was assessed in a general context, whereas social goals were assessed within the context of hypothetical peer conflict scenarios. Consequently, it is possible that social goals and moral disengagement might be more predictive of children's aggressive problem-solving strategies rather than their use of social aggression in general. Nevertheless, because peer-directed aggression and aggressive problem-solving strategies are highly correlated (Pakaslahti, 2000), it is more likely that, rather than this being an issue that raises questions about the current findings, the use of general aggression attenuated the true relationship rather than overstated it. That is, we would expect that future investigations would show an even stronger relationship if aggressive problem solving strategies are assessed rather than general peer-directed aggression. Of course, studies are needed to test this hypothesis.

Next, the results of the current study are limited in their generalizability to other developmental stages. As mentioned in the introduction, middle childhood is an important developmental period to examine the factors that can encourage or discourage peer-directed aggression. Indeed, many bullying intervention and prevention programs are aimed at this age, perhaps given the increasing importance of peer relationships as well as children's ability to engage in metacognition and regulate their own behaviors. However, the prevalence of peer victimization that characterized middle childhood (Goldbaum et al., 2007) is often seen prior to the age when adolescents are expected to display a qualitative shift in their moral reasoning (Schonert-Reichl, 1999). This developmental asymmetry may account for some of the inconsistent longitudinal patterns found in the current study. As such, research is needed to examine longitudinal trends in peer-directed aggression and moral disengagement across a wider developmental time frame than has been used in previous research, thus allowing research to examine the patterns of development between social behavior and moral cognition.

Finally, in the current study, teacher reports were used to examine children's aggressive behavior, but other informants may have added unique perspectives to the study. For example, both self-reports and peer reports of aggressive behavior have also been used, and there is sufficient evidence for their reliability and validity as analytic tools (for a review, see Crothers & Levinson, 2004). However, little is known about how the associations between moral disengagement and bullying may differ as a function of how aggression is assessed. It could be argued that self-reports of aggression would be more strongly linked to moral disengagement than either teacher or peer reports because, as contended by Obermann (2011), a child should be motivated to disengage from self-sanctioned moral

standards only when they feel that their behavior violates these morals. However, an examination of this hypothesis failed to find support; specifically, contrary to hypotheses, Obermann found no difference in moral disengagement between Danish children who self-identified as bullies and those who were identified as bullies by their peers, even when the reports were inconsistent (i.e., identified different bullies). Obermann posited that even children who do not report engaging in frequent bullying behavior may have a reputation with their peers based on past behaviors that warranted some degree of rationalization. However, further studies are needed in order to replicate results among children for whom reports of aggression are highly discrepant.

### *Conclusion*

In conclusion, moral disengagement offers a promising framework for generating and testing hypotheses about the development of peer-directed aggression. Moral disengagement is based within a well-developed theoretical framework, and empirical evidence linking moral disengagement to children's social cognition and social behavior is growing. The current study adds to this body of research by using a 3-year longitudinal design to demonstrate the mediating role of moral disengagement in the link between children's prosocial and antisocial goals (in response to a hypothetical peer conflict) and changes in peer-directed aggression during late childhood. Findings provide support for the social cognitive theory of moral agency and suggest that moral disengagement may be motivated and actively employed when children possess particular social goals.

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